

## AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph on page 7, lines 18-28, as follows:

A ~~[[An]]~~ Symmetric Multiprocessing (SMP) system memory map is structured to support a Non-Uniform-Memory-Access (NUMA) configuration by connecting individual SMP machines. When individual machines are used in stand alone mode, the system ID in the processor is set to zero. The present invention uses the same firmware to configure the system in SMP and NUMA mode. The HSC for the NUMA system will instruct each SMP system's service processor to set up the system in NUMA mode based on the NUMA configuration setup variables stored in each SMP system's ~~Non-Uniform~~ Non-Volatile Random Access Memory (NVARM) ~~(NURAM)~~.

Please amend the paragraph that starts on page 9, line 26, and ends on page 10, line 24, as follows:

Making use of the logical partition hardware of the Giga-processor, each node's CSP starts all GP processors with:

- MSR[SF]=1, which tells the processor to start executing code in 64-bit mode.
- MSR[HV]=0, which places the processor in a logical partition environment.
- HID0[19]=1, which indicates that the timebase function of the processor is operating in NUMA mode. It also serves as a NUMA firmware flag, so that the firmware must follow the NUMA execution path.
- ~~HID4[AS/RS]=1~~, HID4[0]=1, which selects the processor running in the RS/6000 server machine's environment.
- ~~HID4[RMOR]~~. HID4[7:22]= Set this register (node's memory base address) based in the equation: System memory base address (Y) scaled by 64M  
 $=\text{NUMA\_node\_id} * 256\text{G}$ .
- ~~HID4[RMLR]~~. HID4[1:2]=2. Set this register (real mode limit register) to encode 1G real mode address-size enabling.
- ~~HID4[LPID]=0~~, HID4[62:63 || 3:6]=0 which sets the logical partition ID to 0, the default value.

- $PRI[23,25]=NUMA\_node\_id$ . Set this register to the  $node\_id$  of the SMP system where the processor resides.
- $NIA=0x100$ .  $SPRGO=NUMA\_mode\_flag$ . This sets the system firmware to execute at its entry point.

Step (413).